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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/825,846 | 04/16/2004 | Steven B. Bogiel | A4-134 US | 9465 |

23683 7590 05/17/2005

MOLEX INCORPORATED
2222 WELLINGTON COURT
LISLE, IL 60532

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| EXAMINER |
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ZARROLI, MICHAEL C

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| ART UNIT | PAPER NUMBER |
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2839

DATE MAILED: 05/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

AK

Office Action Summary

Application No.

10/825,846

Applicant(s)

BOGIEL ET AL.

Examiner

Michael C. Zarroli

Art Unit

2839

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 10-27 is/are rejected.
- 7) ☒ Claim(s) 5-9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 April 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>4/16/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to because they appear to be informal since **some of the numbers are hard to read**. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement-drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the examiner does not accept the changes, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the connecting device **inserted parallel with the PCB** must be shown or the feature(s) canceled from the claim(s). No new matter should be entered. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement-drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the examiner does not accept the changes, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

1. Claims 1 and, 14 objected to because of the following informalities: The phrase “terminal mounted on the housing” should be **–in the housing--**.

Appropriate correction is required.

2. Claim 1 objected to because of the following informalities: In the next to last line the phrase “the housing **spaced** above.” Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

4. Claims 14-20 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

How can you have a flex section that is a right angle and still have the blade inserted into the receptacle parallel to the PCB? Is there a drawing that shows this? All the drawings show the blade perpendicular to the PCB. Maybe it would be clearer to say the insertion axis is parallel to the PCB.

The examiner will “parallel” in claim 14 as perpendicular.

Claim 17 recites the limitation "said other leg" in line 1. There is insufficient antecedent basis for this limitation in the claim. The examiner is not sure what component the applicant is reciting. Components 52 and 54 the examiner will interpret as the legs.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-4, 10-13 and, 21-27 rejected under 35 U.S.C. 102(b) as being clearly anticipated by applicant cited art Matthews (US 5431576).

Matthews discloses a side-entry board mounted blade-receiving electrical connector (fig. 3), comprising: a dielectric housing (col. 5 lines 7-8) having a bottom wall and a blade-receiving receptacle (39) at a side of the housing (fig. 6); and at least one conductive terminal (fig. 8) mounted on the housing (fig. 10) and including a contact section (80) exposed within the receptacle for electrically engaging a terminal blade (28 in fig. 11) of a complementary mating connecting

device (9) inserted into the receptacle generally parallel (fig. 12) to a printed circuit board (112), a mounting section (60) exposed exteriorly of the housing (fig. 3) below the bottom wall thereof for mounting the connector (fig. 11) on the printed circuit board, and a flex section (see section of figure 8 highlighted on an adjoining page) joining the mounting section to the contact section and performing a dual function of (a) spacing the bottom wall of the housing spaced above the printed circuit board (fig. 10 near 37 & 57) and (b) providing a yielding flexibility between the connector and the board (col. 2 lines 52-60).

Regarding claims 2 and 22 Matthews discloses that the mounting section of said conductive terminal is a plate-like member for flush mounting on a surface of the printed circuit board (fig. 10 at 37).

Regarding claims 3 and 23 Matthews discloses that said conductive terminal is stamped and formed of sheet metal material (figures 8 & 9).

Regarding claims 4 and 24 Matthews discloses that the flex section of said conductive terminal comprises a generally right-angled bend in the terminal between the mounting section and the contact section (see section of figure 8 highlighted on an adjoining page).

Regarding claims 10 and 25 Matthews discloses that the bottom wall of said housing is recessed in an area immediately above the mounting section of the conductive terminal (fig. 3).

Regarding claims 11 and 26 Matthews discloses that said housing has at least one anti-overstress wing (36) projecting outwardly therefrom above the printed circuit board to prevent over-flexing of the conductive terminals.

Regarding claims 12 and 27 Matthews discloses that a pair of said conductive terminals at opposite sides of the blade-receiving receptacle (fig. 10).

Regarding claim 13 Matthews discloses that said contact section has a plurality of flexible spring fingers (fig. 4 at 80) for engaging the terminal blade of the mating connecting device.

7. Claims 14, 17, 19-20 (as best understood) rejected under 35 U.S.C. 102(b) as being anticipated by applicant cited art Matthews (US 5431576).

Matthews discloses a side-entry board mounted blade-receiving electrical connector (fig. 3), comprising: a dielectric housing (col. 5 lines 7-8) having a bottom wall and a blade-receiving receptacle (39) at a side of the housing (fig. 6); and a pair of conductive terminals (fig. 8) mounted on the housing at opposite sides of said blade-receiving receptacle (fig. 10), each terminal being stamped and formed of sheet metal material (figures 8 & 9) and including a contact section (80)

having a plurality of flexible spring fingers (82) exposed within the receptacle (fig. 11) for electrically engaging a terminal blade (28) of a complementary mating connecting device (9) inserted into the receptacle generally parallel/perpendicular to a printed circuit board (112), a plate-like mounting section (60) exposed exteriorly of the housing (fig. 3) below the bottom wall thereof for flush mounting the connector on a surface of the printed circuit board (fig. 10), and a flex section (see section of figure 8 highlighted on an adjoining page) formed as a right-angled bend in the conductive terminal between the plate-like mounting section and the contact section and performing a dual function of (a) spacing the bottom wall of the housing above the printed circuit board (fig. 10 near 37 & 57) and (b) providing a yielding flexibility between the connector and the board (col. 2 lines 52-60).

Regarding claim 17 Matthews discloses a latch means (58) on said other leg for latching the conductive terminal to the housing (fig. 10).

Regarding claim 19 Matthews discloses that the bottom wall of said housing is recessed in an area immediately above the mounting section of the conductive terminal (fig. 3).

Regarding claim 20 Matthews discloses that said housing has at least one anti-overstress wing (36) projecting outwardly therefrom above the printed circuit board to prevent over-flexing of the conductive terminals.

Allowable Subject Matter

8. Claims 5-9 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
9. Claims 15-16 and 18 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.
10. The following is a statement of reasons for the indication of allowable subject matter: The combination in claims 5 and 15 specifically the U-shaped cross section parallel to the PCB. The combination in claims 9 and 18 specifically the passage that can accept a PCB from either side.

Conclusion

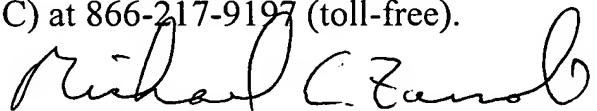
11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Olson and Ikesugi et al teach a flex section. Goto teaches a

connector mounted on a PCB and receiving a mating connector on an axis that is parallel to the PCB.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael C. Zarroli whose telephone number is 571-272-2101. The examiner can normally be reached on 7:30 to 3:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, T.C. Patel can be reached on (571) 272-2800 ext 39. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Michael C. Zarroli
Primary Examiner
Art Unit 2839

MCZ
MCZ

